

DST Changes for HP High Availability Products

This document summarizes changes required to Continentalclusters, Metrocluster, Serviceguard, Serviceguard Manager, and Serviceguard Quorum Server environments due to the Daylight Saving Time changes in 2007.

The US Congress recently passed a law which mandates new start and stop dates for Daylight Saving Time (DST) in the United States. From 2007 onward, US DST will commence the second Sunday in March and end the first Sunday in November.

To accommodate these changes, you must update of the DST-specific content in the following components:

- The system time zone tables
- Application DST tables (for applications like Java runtime Environment (JRE) which maintain their own DST tables)
- Hardware devices which are DST aware

More detail about the issue is available at:

<http://www.hp.com/dst/>

NOTE:

1. DST changes are also happening in some countries in Asia Pacific like Australia.
 2. Please make sure you follow the Special Installation Instructions mentioned in the documentation of the specified Patches.
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Supported versions of the following products require only Operating System patches to use the correct time:

- Serviceguard
- HP Serviceguard for Linux
- Serviceguard Extension for RAC
- Serviceguard Quorum Server
- Enterprise Cluster Master Toolkit
- Metrocluster

To use the correct time, the following products require Operating System patches. In addition, they also require updating to the product version indicated below (recommended) or updating the JRE bundled with earlier versions.

- Continentalclusters (update to A.06.00 or later)
- Serviceguard Manager (update to A.05.01 or later)

Recommended procedures for these upgrades are described below.

Continentalclusters

DST changes affect Continentalclusters in the following aspects:

- During overlap time (that is, when the new DST starts until the old DST sets in and vice versa), the event notifications will have incorrect timestamps attached to them.
- During overlap time, the logs (sentryd and notification logs) generated will have incorrect timestamps.

To correct these issues for Continentalclusters (CC):

1. HP recommends upgrading to CC version A.06.00 or later. As an alternative to a full version upgrade, the JRE bundled with CC can be updated with new DST table entries. JRE supplies a tool `tzupdater` to do this. The instructions to use this tool and patch the JRE with updated DST tables can be found at.

<http://www.hp.com/products1/unix/java/DST-US.html>

CC installs the JRE under the path `/opt/cmconcl/jre/bin`. To update this JRE with the `tzupdater` tool; do the following on all the nodes in the Continentalclusters as "root" user.

- i. Install the `tzupdater` tool
- ii. Halt the Continentalclusters monitoring package `ccmonpkg`.
- iii. Run the tool using the JRE bundled with CC.

For example: `/opt/cmconcl/jre/bin/java tzupdater.jar`

2. Apply the appropriate the HP-UX DST patch to all systems running Continentalclusters. HP-UX patches are identified in Customer Notice C00832124:

<http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?lang=en&cc=us&objectID=c00832124>

Serviceguard

DST patches can be applied while the cluster is running. The recommended procedure is:

1. Move running packages off the node on which the DST Operating System patch is being installed.

2. Halt the node:
cmhaltnode

3. Apply the appropriate DST Operating System patch.

Read and follow the directions and the Installation Instructions of the patch being applied.

HP-UX patches are identified in Customer Notice C00832124:

<http://h20000.www2.hp.com/bizsupport/TechSupport/Document.jsp?lang=en&cc=us&objectID=c00832124>

On Linux, errata with DST updates are available at the following:

RedHat:

http://kbase.redhat.com/faq/FAQ_85_9951.shtm

Suse:

https://secure-support.novell.com/KanisaPlatform/Publishing/607/3853518_f.SAL_Public.html

4. Rejoin the cluster:
cmrunnode

At this point packages can be migrated back to this node. If there are any packages that have the FAILBACK_POLICY set to AUTOMATIC and have the upgraded node as the Primary, then these packages will automatically migrate to this node when it starts.

5. Repeat the above steps for all other nodes in the cluster.

Serviceguard Manager

DST changes affect Serviceguard Manager (standalone) in the following aspects:

- During overlap time (that is, when the new DST starts until the old DST sets in and vice versa), the event notifications will have incorrect timestamps attached to them.
- During overlap time, the logs generated will have incorrect timestamps.

To correct these issues for Serviceguard Manager (SGMgr):

1. HP recommends upgrading to SGMgr version A.05.01 or later. As an alternative to a version upgrade, update the JRE that comes bundled with Serviceguard Manager and replace it with JRE 1.4.2_12 or later.

For example, on HP-UX, download JRE 1.5.0.03 (<http://hp.com/go/java>) and install on your client machine.

```
cp -r /opt/sgmgr/jre /opt/sgmgr/jre.bak
Then copy the newer jre to /opt/sgmgr/jre
```

For Windows or Linux, go to Sun's website (<http://java.sun.com>) and install the newer JRE on your client machine.

Windows:

Replace C:\Program Files\Hewlett-Packard\ServiceGuard Manager\jre with the newer JRE.

Linux SuSE: Replace /opt/sgmgr/jre with the newer JRE

Linux RedHat: Replace /usr/local/sgmgr/jre with the newer JRE

2. Apply the appropriate Operating System patches to the system running Serviceguard Manager.

Serviceguard Quorum Server

DST patches can be applied while the Quorum Server is running. The recommended procedure is:

1. Apply the appropriate DST Operating System Patch

2. Stop the Quorum Server.

Comment out the QS entry in /etc/inittab, and run the following command:

```
/sbin/init q
```

3. Start the Quorum Server.

Uncomment the QS entry in /etc/inittab, and run the following command:

```
/sbin/init q
```

Once the command is complete verify the Quorum Server is running by checking the qs.log file.

Operating System Patches

Most operating system patches can be located from:

<http://www.hp.com/dst/>